PROGRAM ELEMENT EVALUATION REPORT

STATE: Maine

DATES OF EVALUATION: August 16 - 20, 2010

PROGRAM ELEMENT EVALUATED: Growing Area Classification

A. Status of Previous Program Evaluation

The FY 2009 evaluation of the Maine Department of Marine Resources (DMR) Growing Area Program found that the DMR was in non-compliance with an item found in the National Shellfish Sanitation Program (NSSP) Model Ordinance (MO). The Growing Area Program was also provided with a recommendation cited to help the state strengthen its program.

The non-conformity and recommendation noted in the FY 2009 evaluation followed by the states response to each item are listed below:

Non-conformity:

i. During the review of the general program files it was noted that the DMR did not reevaluate all pollution sources necessary to fully evaluate any changes in the sanitary conditions of previously classified growing areas. This deficiency is specifically directed to the limited stream and overland runoff assessment discussed in the Drainage Ditch/Stormwater Runoff section of the FY2009 Program Element Evaluation Report (PEER). [MO Chapter IV@.01.C.3.a.iii]

The Department worked on refining their standard operating procedures (SOP), **3.0.2.5. Stream-Culvert-Drainage Ditch-River Evaluations** section over the winter for the 2010 season. During the FY 2010 evaluation FDA found that the number of samples collected from streams and other runoff prone areas was increased. The stream and overland runoff impact is determined in areas which are classified approved for direct market harvest. This stepped up stream evaluation study is on-going.

Recommendation:

i The FDA recommends that field staff follow the established Division Standard Operating Procedure and use the approved marina boat count form when documenting boats in the conditional area at the start and end of the conditional closure.

FDA reviewed the Marina Evaluation SOP with DMR staff members during the FY 2009 evaluation and the SOP was revisited at the end of last season (October 2009) to assure that staff members are documenting presence/absence of boats in the conditional areas.

B. Status of Current Evaluation

1. Total Number of Growing Areas Evaluated

The Maine Department of Marine Resources monitors 45 separate Shellfish Management Areas. Twelve of the shellfish areas were selected to be evaluated. The number of evaluations is based upon a representative sampling plan designed to provide a 95 percent probability of detecting a 20 percent or greater defect level. The selection of the 12 growing areas was performed by Donald Ullstrom, the Northeast Regional Shellfish Specialist. FDA chose 9 shellfish growing areas which had not been reviewed in the past three years and another 3 selected at random. The selected growing areas are listed below.

2010 Shellfish Management Areas *(w/reports reviewed)*

West - Boothbay Harbor Office	East - Lamoine State Park Office
WB - Kittery & York - *(A)*	WX - Penobscot River - *(A)*
WK - Harpswell Sound & Quahog Bay- *(A)*	ED - Isle au Haut- *(T)*
WL - New Meadows River -(*A)*	EF - Western Blue Hill Bay - *(A)*
WM - Kennebec River - *(A)*	EL - Narraguagus Bay - *(A)*
WT - Friendship - *(S)*	EQ - Little Kennebec River - *(A)*
WY - Islesboro – *(A)*	ES - Cutler - *(S)*

A - Annual Update, T - Triennial Evaluation, S - Sanitary Survey

2. Program Area Level of Compliance

a) Sanitary Survey

General

The Maine DMR follows the NSSP Model Ordinance regarding the completion timeframes for all required reports. Currently the staff is required to complete the Sanitary Surveys every 12 years, the Triennial Reports every 3 years and the Annual Updates every year. Internal DMR policy states that all reports are to be formatted to meet the requirements of the MO. All Annual Updates are scheduled to be completed the first quarter of each year for the previous calendar year. Conditional area management plans are re-evaluated on an annual basis. Information gathered from the management plan review is included in the Annual Update and used to support any changes in classification. All conditionally managed areas that were reviewed during this evaluation period were closed according to the criteria established in the Conditional Area Management Plan.

The DMR staff receives great pressure from the commercial shellfish harvesters to reopen closed areas as soon as possible. Areas closed due to rainfall conditional management plan violations are closed for a minimum of fourteen days after the events. In order to be more responsive to the harvesters demand, the DMR has decided to incur the additional expense of sampling both shellfish growing waters and shellfish tissues in an attempt to open the shellfish harvesting areas more quickly whenever possible and appropriate. A closed area will reopen only after acceptable water samples and/or shellfish tissue results are received and evaluated. This sampling also supplements ongoing studies to document relationships between fecal coliform bacteria levels in the water and fecal coliform bacteria levels in the surrounding shellfish. Any correlation made could reduce the effort of future sampling and also allow the fourteen-day cleansing period to be shortened.

As part of the April 14, 2008 resolution signed into law by the governor requesting that the findings of the independent audit be implemented, a Shellfish Advisory Council (ShAC) was created to make recommendations to the commissioner and the legislature on shellfish issues. The ShAC is tasked with making recommendations on how to best utilize state agencies, municipal governments, the shellfish industry and citizen groups to make improvements to and maintain the quality of the state's coastal waters. The ShAC is to act as a liaison between the multiple groups and the DMR. The ShAC, in part, is also charged with assisting the DMR with prioritizing the existing workload.

Required

Sanitary Surveys are completed on all Shellfish Management Areas prior to the harvest of shellstock for human consumption. A Sanitary Survey along with its associated shoreline survey is used to determine the proper classification of an area as Approved, Conditionally Approved, Restricted, Conditionally Restricted or Prohibited.

Written reports were present in either final draft or final copy form for all 12 management areas reviewed. DMR follows the format described in the NSSP MO Guidance Document - *Growing Areas* found in Section IV, Chapter II.03. The reviewed reports (Sanitary Survey, Triennial Evaluation and Annual Update) had all of the required sections and subsections. The two sanitary survey reports evaluated that required survey reports had all sections which were very detailed; and included charts, graphs and pictures to further illustrate findings. Both sanitary survey reports included a stream assessment section.

When the shoreline survey results are reviewed and the water quality data is analyzed the DMR completes the written sanitary survey report. The report details the findings of the staff in the specific Shellfish Management Area. All failing water quality stations are placed in classifications (other than approved) which would prevent direct market harvest except under certain circumstances.

EL – Narraguagus Bay growing area:

On August 16, 2010 the FDA accompanied the DMR on a drive through survey of the EL – Narraguagus Bay growing area. This trip allowed the FDA to compare sample stations, pollution sources and other items of interest observed in the field to what was documented in the Annual Evaluation document. During the field trip we first drove to the town Sewage Treatment Plant (STP) in Milbridge and viewed the plant from the road. No dye studies were conducted to determine the impact this plant had on the nearby growing areas. Instead, DMR established a buffer zone for the Milbridge STP based on mathematical calculations using worst case situations for untreated or partially treated sewage

Our travels took us west bound on Wyman Rd. DMR pointed out various residences which have had a history of failing septic systems or which were tied to Overboard Discharge Systems (OBDs). DMR plans to upgrade the area near one of these residences which fixed their failing system (monitored through sample station EL-21).

WX – Penobscot River and **WY – Islesboro** growing areas:

On August 17, 2010 the FDA accompanied the DMR on a water collection sampling run through the WX – Penobscot River and WY - Islesboro growing areas respectively. This trip allowed the FDA to compare sample stations, pollution sources and other items of interest observed in the field to what was documented in the Annual Evaluation documents. We utilized a 25 foot "Eastern" vessel powered by a 140HP outboard engine to conduct water sampling and survey activities.

All shoreline in Area WX is classified prohibited. Closures are based on wastewater treatment facilities within the area and on the margins in adjacent growing areas. Additional treatment facilities are located above the head of tide within the Penobscot River watershed. Several paper manufacturing mills, treated and un-treated storm water discharges and residential licensed OBDs are also located along the Penobscot River and on Verona Island and Castine. Several sample stations are affected by non-point pollution without identifiable sources. There are four marine pump-out stations in growing area WX. And densely developed sections of the area continue to result in poor water quality.

Growing area WY includes the island of Islesboro and several smaller islands located in upper Penobscot Bay. Islesboro is approximately 10 miles long by 2.5 miles wide at its widest point. The shores of Islesboro consist of sand and cobble beaches with few actual mud flat areas. Islesboro is very remote with no marinas. There is a small municipal treatment facility on the southeast side of the island that serves a total population of 140 residents. All the remaining residents have either private in ground systems, licensed OBDs, outhouses, or composting toilets. The entire shore along the southern half of the island is classified prohibited based on lack of a shoreline survey for most of that area. Most of the northern half of the island is classified approved

with a small section classified restricted. Another small section of the northern half of the island is classified prohibited due to the presence of OBDs.

WT – Friendship and Cushing growing area:

On August 18, 2010 the FDA accompanied the DMR on a drive through survey of the WT – Friendship and Cushing growing area. This trip allowed the FDA to compare sample stations, pollution sources and other items of interest observed in the field to what was documented in the Sanitary Survey Evaluation document. We began our survey activities at Martin's Point and drove north along the eastern shoreline where we observed the prohibited areas adjacent to the shoreline. These areas are classified prohibited based on the presence of OBDs and indirect pollution source associated with private residence septic systems. We then drove to Friendship Cove and from the Friendship Town Wharf, we viewed the closure area adjacent to sample station #8. Poor water quality in this area is impacted due to the presence of active OBDs.

We then drove north view a closure area monitored by sample station #15. This particular area is classified prohibited due to the impact of two streams feeding into the area, one which passed by a farm. We then drove east and observed the areas classified as approved near sample stations 16, 17, 18, 18.5 and 19.5 located in the Meduncook River. DMR explained that due to poor trends at station 19.5, the existing restricted area boundary line at the head of the river will be extended southward to expand the restricted zone.

We then drove east into Cushing and proceeded to Hornbarn Cove which is classified restricted. DMR pointed out that there is a stream feeding into the cove near sample station #21 which is impacting the cove. DMR explained that station 21 was placed at the mouth of the stream to determine if the restricted zone of Hornbarn Cove can someday be decreased to just the stream feeding the cove.

Prior to finishing the day's shoreline activities, DMR explained that the prohibited zone placed around the northern portion of Otter Island was based on lack of an up to date sanitary survey of the island. However, that portion of the island is being proposed for upward classification to approved based on a new survey conducted in 2009.

WL – New Meadows River, **WK – Harpswell Sound and Quahog Bay** and **WM – Kennebec River** growing areas:

On August 19, 2010 the FDA accompanied the DMR on a drive through survey of the WL – New Meadows River, WK – Harpswell Sound and Quahog Bay and WM – Kennebec River growing areas. This trip allowed the FDA to compare sample stations, pollution sources and other items of interest observed in the field to what was documented in the Annual Evaluation documents. We began our survey activities at the northern section of WL – New Meadows River. We viewed the headwaters section of the river from Old Bath Rd. DMR explained that this section

of the river was once classified conditionally approved, but is now classified approved, based on improved water quality.

We then drove east to WM – Kennebec River and began our drive through survey of this area at Marrtown near sample station 26. Areas to the south of this station are classified seasonally conditionally approved, closed September 1 through December 31, when water quality declines most likely due to the presence of migratory birds.

We then drove to the southern point of Georgetown Island and viewed the conditionally approved areas within Heal Eddy and Sagadahoc Bay. DMR explained that the state shoreline survey of this growing area determined that there are few pollution sources on Georgetown Island and Arrowsic Island located north of Georgetown Island. However, much of the adjacent waters at the mouth of the Kennebec River are classified conditionally approved with closures based on river flow rates. DMR determined that water quality diminishes when the river flow increases. Under these conditions the Kennebec River and connected Androscoggin River delivers pollution from inland pollution sources to the coastal areas triggering a closure when the Kennebec River discharge reaches 30,000 cubic feet per second (cfs).

We then drove west to the Phippsburg Peninsula and viewed a prohibited zone of WM – Kennebec River at Mill Pond. DMR explained that poor water quality in Mill Pond is most likely due to lack of adequate flushing due to the northward bend configuration of the pond in relation to the Kennebec River which flows southward. We then continued south along the east shore of the Phippsburg Peninsula and drove to Atkins Bay which is also a part of the river flow conditional area at the mouth of the Kennebec River.

We then drove to the west shoreline of the Phippsburg Peninsula and reentered into WL – Lower Meadows River at Head Beach. We then drove north along the west shoreline of the Phillipsburg Peninsula to a closure zone at the inner portion of Winnegance Bay monitored by sample station 68. Spikes of poor water quality at station 68 are due to identified pollution source and non-point source pollution.

We drove north into West Bath and viewed a recent closure zone placed at sample station 44.5. This particular closure was based on a failing septic system of a private residence.

We then drove to the Foster Point peninsula in West Bath. DMR explained that they classified a stretch of water adjacent to the west side of the peninsula as restricted due to unidentified non-point source pollution. We then exited the Foster Point peninsula and drove west to Sebascodegan Island.

We traveled south on highway 24 along the New Meadows River on Sebascodegan Island. We were able to review OBDs, campgrounds, farms and one house south of Indian Point that was suspended over the growing area. This particular house was observed during the FY2009 evaluation.

Due to the location of the house and waste pipes leaving the house draining to a leach field high on shore the area was closed to shellfish harvesting. Due to the tide being low, the shellfish mud flats are clearly visible in the picture above taken during the FY2009. We viewed the same house during the FY2010 evaluation and noted that no remediation of the waste water system has been done (see picture below).

Photo on left taken on 8/19/10

We then drove to the west shoreline of Sebascodegan Island and entered WK – Harpswell Sound and Quahog Bay. We viewed the seasonally conditionally approved area adjacent to the Orr's Cove marina monitored by sample station 56.

We then drove south on the peninsula to Card Cove. DMR explained that Card Cove was once classified approved. However, one failing septic system of a private residence caused the closure of approximately half the cove. Until the problem is remediated, the effected area cannot be returned to approved classification. We then drove west onto the Harpswell Neck Peninsula.

We drove to the southern end of Harpswell Neck Peninsula and concluded our survey at Stover Cove. Stover Cove is classified restricted.

WB – Kittery and York growing area:

On August 20, 2010 the FDA accompanied the DMR on a drive through survey of the WB – Kittery and York growing area. This trip allowed the FDA to compare sample stations, pollution sources and other items of interest observed in the field to what was documented in the Sanitary Survey Evaluation document.

DMR explained that growing area WB includes Seapoint Beach, Brave Boat Harbor and the York River. There are no municipal waste water facilities in this area. Existing pollution sources in this growing area include two marinas located in the lower portion of the York River, as well as moorings and slips managed by the Town of York.

On January 12, 2009 the entire WB growing area was reclassified to prohibited due to an expired shoreline survey. In October 2009, a shoreline survey was completed from the mouth of the York River to the Sewalls Bridge spanning the river. Based on this shoreline survey, this portion of the river was upgraded to seasonally conditionally approved, closed from May 1 through November 15 during boating season. There is only recreational harvesting conducted in growing area WB with no commercial interest at this time.

Performance

The DMR schedules Sanitary Surveys to be completed once every 12 years for each Shellfish Management Area. The water quality staff recognizes that if a Sanitary Survey (or a Triennial Review) is not completed within the specified time frames then the Shellfish Management Area shall be placed in the closed status pending completion of the report.

In past years the FDA has found growing area reports not completed within the timeframes required by the NSSP. During this evaluation it was noted that the DMR has been proactive and has appropriately closed all affected growing areas which did not have all required work complete. Some of the deficient work noted was lack of shoreline survey, lack of adequate pollution source assessment and incomplete final

reports documenting all findings in the area for the previous year. The closing of these areas allowed the DMR to remain in overall compliance with the NSSP MO since the areas are no longer harvested for human consumption. The DMR is aware that all requirements must be met prior to the closed growing areas reopening for harvest.

Growing Area WT (Friendship and Cushing) had a Sanitary Survey Evaluation due in 2010. The report was presented during the evaluation as a final report and had gone through management review and concurrence. Growing Area ES (Cross Island-Cape Wash, Cutler to Mowry Point, Lubec) was also due in 2010. That report was presented during the evaluation as a draft report before going through management review and concurrence. Both reports were reviewed as part of the FY 2010 PEER and were found to have had all of the NSSP required information.

Triennial Report --

The DMR Shellfish Program completes Triennial Reports every three years in order to supplement and update information found within the Sanitary Survey. The triennials are more comprehensive than the Annual Updates. The triennials are intended to be a thorough review of all known pollution sources; an actual reassessment of their impact on the shellfish growing waters.

The report for ED (Isle au Haut) was submitted by the DMR to the Shellfish Specialist during this evaluation. The report presented was a final report and had gone through management review and concurrence. Review of the report found that it had all of the NSSP required information.

Annual Update --

Annual Updates are designed to review important performance standards, sampling data and pollution source information to determine if a downward trend in water quality is occurring. The Annual Updates were reviewed as part of this evaluation and found to be complete; thus they are in compliance with the minimum requirements of the NSSP MO.

The review of the annual reports revealed great detail in the narrative sections of the updates which is an improvement over past years. The growing area staff members, with direct oversight from management, continue to review and improve upon the reports outline (template) to help ensure consistent reporting by all staff members.

Sampling requirement --

The DMR Shellfish Program operates under the Systematic Random Sampling Scheme and creates the sampling schedule in December of each year for the next calendar year. The schedule is completed far enough in advance to ensure sufficient variation with respect to environmental conditions. A master sampling

schedule file is maintained for each of the two Division offices. The water quality staff is required to document any changes to the sampling calendar and obtain management approval prior to any change. The reasons for any schedule changes are added to the file. Possible reasons to change sampling schedules may include: hazardous weather conditions, equipment failure, other high priority public health incidents, etc.

The review of growing area reports found that the DMR collected the minimum number of samples required to be collected. A minimum of six samples were collected at all active stations in 2009. In those growing areas with conditionally managed shellfish beds the minimum number of samples were collected whether the condition was rainfall (six samples in the open status), marina/seasonal (three samples in the open status) or WWTP (monthly samples in the open status.)

The 2007 independent audit suggested that the DMR should collect all samples in a minimum depth of 18 inches of water from six to nine inches below the surface whenever possible to limit the amount of surface contamination from being collected as a representative sample of the surrounding water quality. Prior to the audit the DMR was collecting routine water samples in a range of 12 to 18 inches of water with a minimum depth of four inches from the surface. The DMR also had a low tide sampling guideline suggesting water be collected in no less than six inches of water. A review of the data set found that fewer samples are now being collected at lower tides due to the need for more water at each station. Since this sampling approach has been used for less than two years it is unclear what effect this will have on the overall dataset. The NSSP requires that sampling take place across all tide stages unless a particular tide stage has been identified through science to be impacted by elevated bacteria levels. In order to ensure that the dataset continues to meet the minimum requirements of the NSSP the DMR has been reassessing all sample stations for need and accurate placement. As a result of this assessment the DMR has both created new stations and deactivated others.

Conditional Area Management Plans --

The DMR Shellfish Program uses the conditionally approved and conditionally restricted classifications in order to allow Maine shellfish harvesters a greater opportunity to harvest shellfish otherwise not accessible under the traditional classification process. The program uses the conditional area classification for the following conditions when the water quality variations are predictable: wastewater treatment plant, marina, rainfall and season. The conditional areas are placed in the open status when the area meets approved water quality, thus allowing more opportunity to harvest shellfish.

The conditional area management plans are being reviewed annually for compliance with NSSP requirements as well as for their predictability and manageability. The DMR has increased sampling efforts in order to obtain information needed to fully assess the predictable nature of the conditional areas. The creation of new conditional areas has slowed in recent years as the

Department spends more time reviewing the appropriateness of existing areas as well dealing with the fact that these areas are very resource and labor intensive to manage.

Marina Conditional Areas are managed on the presence or absence of boats in any shellfish growing area. During this evaluation it was noted that the Marina Conditional Areas have proper documentation showing that the conditions are being met prior to the reopening or closing of the area. The field personnel are using the established form per the Division's SOP to document the number of boats for the file to justify the dates the conditional area is in the open status.

b) Shoreline Survey Requirements

The DMR is required to evaluate and document all potential and actual pollution sources in the initial Sanitary Survey report for each growing area. Throughout the year, staff members constantly update pollution source information by monitoring via boat and/or vehicle. The pollution source information gathered throughout the year is then incorporated into the next appropriate report. A review of the shoreline survey database found the entries to be complete and accurate.

Since 2007 the Public Health Division has worked diligently to identify growing areas with deficient shoreline survey assessments. DMR management has reviewed growing area files and mapped the coastline to reflect where immediate field survey work was needed. The map color coded the coast to reflect activities needed in less than two years (red), two years to five years (yellow) and greater than five years (green). Through the internal review of the shoreline activities many growing areas had portions of coastline which exceeded the 12 year minimum timeframe for review. As a result of the overdue field work Growing Areas WB through WG were recently reclassified to "prohibited," closing vast productive shellfish harvesting areas. However, a portion of Growing Area WB was upgraded to seasonally conditionally approved based on a new partial survey of that area.

Specific pollution concerns are individually discussed below as they are found in the reports along with noted details from the shoreline survey database:

Domestic/Industrial/Agriculture Wastes

Many of the 45 Shellfish Management Areas are negatively impacted by Wastewater Treatment Plants (WWTP) that discharge either directly into the surrounding shellfish waters or indirectly by discharging into rivers which drain into the growing areas. DMR has placed buffer zones around all of the discharges located in the coastal zone. Some of the treatment plant outfalls have completed hydrographic studies. Outfalls waiting for these studies are required to have established buffer zones based on mathematical calculations using worst case situations for untreated or partially treated sewage.

There are very few industrial discharges along the coast of Maine. The industrial discharges that exist are located in heavily populated areas which have an existing closure due to other influences. The field component of this evaluation found all industrial areas assessed in the sanitary survey reports were in prohibited shellfish areas.

Agricultural runoff is not a problem for many growing areas along the coast. The bold rocky coast of downeast Maine is not conducive to large amounts of livestock. There are vast blueberry fields near the coastal waters; however stream sampling has not shown their overland runoff to pose a problem to the surrounding water.

Agricultural runoff along the western part of the state has a more pronounced and immediate impact to local shellfish beds after rainfall. Animal farms ranging from just a couple horses all the way up to several hundred head of cattle can be found in and around the bays and coves stretching from the Town of Kittery east to the Saint George River. During FDA's 2008 review at the Boothbay Harbor Laboratory basic agricultural information was found in the reports, however details regarding waste management, buffer zones and exact numbers and types of animals were lacking. While conducting the field survey portion of the 2008 evaluation animal farms were noted along the shore but were not found described in the written reports. During the 2009 and 2010 reviews the Agricultural section in all reports contained more detail and accurately described observed field activities.

Domestic Waste - Individual Sewage Disposal Systems

As is often the case in coastal Maine, the subsurface soil composition is not always adequate for establishing proper leach fields. Consequently the majority of the recently installed septic systems are designed to have raised bed leach fields. Prior to the use of this more modern sewage disposal system, the coastal area of Maine relied on a system known as an Overboard Discharge (OBD). The Maine Department of Environmental Protection (DEP) currently licenses, regulates, and inspects these OBDs which are approved sewage treatment systems consisting of a sand filter or mechanical treatment system and a chlorine disinfection unit used to treat discharges of sanitary waste from residential and commercial facilities. If the system is designed properly the chlorinated waste is discharged through a pipe extending to below the low tide mark. OBDs have been regulated in Maine since the late 1970s when direct discharges of untreated wastes were banned. New OBDs are prohibited by law however, existing systems that remain licensed and inspected may continue to be used until the owner is offered a grant from the Maine Overboard Discharge Program administered by the DEP. The program offers money to replace the OBD with a traditional septic system; or find and/or design an alternative system that can be installed. The Maine Overboard Discharge Program awards grants based upon a priority system. OBDs located in the most productive shellfish habitats are the highest priority for

removal. If any of the OBDs are found not to be working properly then that system is given priority for replacement.

Existing OBD outfalls have a prohibited closure zone placed around the end of the pipe. The size of the closure zone is based on calculations generated from the permit information. The water depth (for dilution, including viral), permitted flow rate and the average fecal coliform concentration for a chlorinated system of this type are all factors used to establish a buffer zone to protect public health.

Drainage Ditches - Stormwater Runoff

Stormwater runoff from drainage ditches, creeks and streams are considered to have the largest impact on water quality in the growing areas of Maine. Stormwater transports pollutants, including fecal coliform bacteria, from many of the indirect pollution sources in the drainage basin, to the growing area. The impact of these outfalls is evaluated by strategically placing sampling stations in these ditches, creeks and streams and also at their confluence with the growing area.

As with many indirect sources of pollution, the overall impact from these specified drainage-ways on the growing area is only known through the review of long-term historical data. Most of the data centers on heavy rainfall events. This is due to the fact that these drainage-ways, which may be dry most of the year, will begin to flow, becoming a conduit for potential pollution to reach the viable shellfish areas. Actual flow rates are now being collected and are used to generate fecal loading calculations.

During the 2009 evaluation FDA determined that storm water impacts were not fully assessed in several growing areas throughout the state. The sanitary surveys reviewed did contain more information compared to last year; however the number of samples collected from streams and other runoff prone areas was limited. The stream and overland runoff impact was not fully determined in areas which are classified approved for direct market harvest. The 2010 evaluation determined that DMR increased the number of samples collected from streams and other runoff prone areas to help further delineate the extent of the pollution impact.

Wildlife/Domestic Animals

General descriptions of migratory waterfowl and typical populations of other regional wildlife are included in the shoreline survey reports. Regional wildlife populations are considered significant contributors to the fecal coliform levels in the growing areas during rain events within the local drainage basin. Migratory waterfowl are contributors also; however, the overall impact of wildlife, in general, is ultimately unknown.

Domestic animals within the management areas are typically dogs and cats. Few homes have horses and fewer still have other barnyard type animals as domesticated pets. Various towns along the coast have created new regulations prohibiting pet fouling near sensitive shellfish growing waters.

Marinas

All growing areas selected for review during this evaluation with marinas in close proximity to approved shellfish harvesting waters were evaluated by the DMR. However, one growing area not selected for review during this evaluation had an undocumented active mooring field operating in approved waters off Cape Jellison in Growing Area WW. This particular mooring field was found by FDA during the FY2010 Control of Harvest (patrol) evaluation (see "FDA Recommendations").

It has been noted that the marina community within Maine will only operate part of the year due to adverse regional weather. The operating procedures the marinas have in place provide an excellent opportunity for the shellfish growing waters to be accessible, at least part of the year, to direct market harvest through the use of conditional management plans. The DMR has worked over the past few years to complete marina surveys in which they will document all know pollution sources associated with the marina including pump out facilities, fuel docks and boat repair operations. The staff has been collecting marina latitude/longitude data and is developing a statewide GIS data layer for mapping purposes.

The marina closure zones were created by the state using volumetric calculations and re-verified during the evaluation. The basic formulas used were found in FDA guidance issued in June 1989, which describes the proper procedure when establishing a precautionary closure zone around a marina for the purpose of protecting public health.

It is important to evaluate all boat fueling docks as possible pollution sources which may have an affect on the shellfish growing waters. Fuel spillage reporting criteria should be reviewed for all boat fueling stations including any available response plan which would be used in the event of a spill. DMR staff continues to locate unreported commercial seafood docks where fuel tanks are found along the shore. Tanks which do not have containment systems to collect any spilled fuel are of particular concern since they may have an adverse affect on nearby shellfish harvesting beds. The staff has been collecting specific fuel dock latitude/longitude data and has found a statewide GIS data layer for mapping purposes to share between DMR and the ME DEP. DMR and DEP plans to have interagency discussions to establish roles and responsibilities and define what they are required to have for spill response plans.

During the 2009 evaluation it was noted that the Lamoine Laboratory was not properly documenting the presence/absence of boats when the marina conditional

area was scheduled to either open or close. Since the conditional area open status for harvesting is based solely on the actual presence of the boats, the known potential pollution source, it is crucial that the records documenting the boats in the area be accurate. It was noted that the Lamoine Laboratory was entering boat count information onto very few data sheets, if at all. During the 2009 evaluation the lab agreed to return to using the approved Division forms per their standard procedures, which was verified during the 2010 evaluation.

Radionuclides/Metals

There were no known sources of radionuclides or heavy metals impacting any of the growing areas evaluated. There is some metals data in the central files for those growing areas near industrial or more heavily populated areas. General statements to this effect are made in each of the growing area reports. The Maine Department of Environmental Protection tests coastal water, sediment and shellfish for metals and provides the analytical data on their website.

c) Illnesses

The State of Maine has not been the original source of shellfish associated with any *Vibrio vulnificus (V.v.)* or *Vibrio parahaemolyticus (V.p.)* illnesses in the past three years. The DMR updated their state regulations and require harvesters to deliver shellstock to dealers within 16 hours of harvest. This is currently more restrictive than the previous requirement which allowed harvesters to follow Time-Temperature Matrix Option 3 - Level 2, which allows for 20 hours after harvest.

Because there have been no *V.p.* illnesses epidemiologically linked to the consumption of oysters harvested in the state, and because water temperatures do not exceed 81 degrees Fahrenheit, a Vp control plan for Maine is not required by the NSSP. State regulation in Maine requires shellstock to be refrigerated within 16 hours of harvest. Although the authority is not required to perform a risk assessment the DMR completed the FDA *V.p.* risk assessment worksheet which found that oysters harvested in July and August should be refrigerated within ten hours of harvest. Under state regulation European oysters can not be harvested June 15 to September 15. Currently American oysters and all oysters harvested by aquaculturists are exempt from the harvesting date restrictions. There are no dealers in Maine conducting post harvest processing to control Vibrios.

DMR was alerted to a possible *Vibrio parahaemolyticus* illness associated with the consumption of Maine softshell clams in August 2009. Nashua (NH) Department of Public Health and Community Services conducted an investigation regarding a confirmed case of *V.P.* in a New Hampshire resident who ate at a Maine restaurant and became ill on August 25, 2010, upon return to New Hampshire. The complainant reported eating steamed soft shell clams and lobsters. DMR collected tags from the restaurant that may have been served to the victim. Those tags were from two certified Maine dealers. Further investigation revealed that the shellfish from those

two dealers originated from three other certified Maine dealers located in Damariscotta, Harrington and Jonesport.

The state of Maine experienced their first paralytic shellfish poisoning case in nearly 30 years on August 1, 2007. A lobsterman from the Downeast area of the state found a floating 55-gallon poly drum offshore while tending to his lobster pots. The drum was covered with blue mussels of varying sizes. The lobsterman retrieved the drum from the open ocean and took it home that same day. He proceeded to remove the mussels, cook them and serve them to three of his family members in addition to himself. The mussels contained high levels of saxitoxin which resulted in immediate respiratory distress among the family members. Three of the four individuals were admitted to the hospital with symptoms ranging from tingling and numbness to complete paralysis. All four individuals fully recovered. A sample of the remaining cooked mussels revealed toxin levels greater than 16,000 ug/100 g of shellfish tissue (closure threshold is 80 ug/100 g).

A second documented PSP intoxication occurred July 4, 2008. A local family from Washington County was aware of the existing PSP closure in the area; however did not heed the warnings. A family member harvested blue mussels in Cutler Harbor from abandoned fish pens for personal consumption. Three family members consumed the shellfish that same day and were subsequently hospitalized for PSP related symptoms. All three individuals were released from the hospital the following day. Mussels were collected from the fish pens and analyzed by the DMR. The PSP scores were greater than 6,000 ug/100 g of shellfish tissue (closure threshold is 80 ug/100 g).

A third documented PSP intoxication occurred July 11, 2009. DMR was notified of a 76 year old female victim from Swans Island. Two of the victim's relatives dug ~one peck each of soft shell clams before July 4th in Mackerel Cove and Little House Cove and hung them from her boat in the water for a week in Burnt Cove Harbor for cleansing. On July 11 at ~ 6:30 pm the victim ate 25 clams by herself and at 10:30 pm she experienced mouth, tongue and jaw numbness with numbness in her right hand a little time later. She was taken to Mount Desert Hospital in Bar Harbor where she was watched over night and released. The victim stated that her daughter-in-law had given away clams that she dug and later retrieved them and destroyed them after becoming aware of the illness. The recreational harvesters contacted the handful of people to which they had given clams and were told that only two other people ate them and had no symptoms. The recreational digger told the Maine CDC that she was aware of the PSP closure but believed that if she hung the clams from the boat during the week they would be "cleaned".

d) Marine Biotoxin Evaluation

The DMR has developed a marine biotoxin contingency plan for all marine and estuarine shellfish growing areas. The blue mussel, *Mytilus edulis*, is used as the indicator species when monitoring for paralytic shellfish poisoning (PSP). PSP levels in mussels usually become toxic two weeks before soft-shelled clams, *Mya arenaria*.

Mussels are sampled weekly from April through October along the entire coast. Additional samples are collected as conditions dictate whether to further delineate a closure or simply assess an area that has experienced a slight rise in PSP concentrations.

Maine adheres to the PSP international toxic level standard of 80 micrograms/ 100g of whole shellfish tissue. Current state law allows the DMR to immediately close any area that contains toxins or contaminants known to be a public threat. This type of emergency closure effectively revokes all shellfish licenses; it also grants authority to embargo, confiscate and destroy contaminated or potentially contaminated shellfish.

When a closure is deemed necessary, the director of the biotoxin monitoring program will draft a legal notice and a map and notify the state's shellfish program director. The director of the biotoxin monitoring program will then submit the legal notice to the Commissioner's office. Once the legal notice has been signed by the Commissioner or his/her designee, the director of the biotoxin monitoring program will update the Shellfish Sanitation Hotline with the new information and send out an e-mail version to the distribution lists, while the shellfish program coordinator works on sending out copies of the legal notice by fax to all affected towns, marine patrol offices, and municipal shellfish wardens. The shellfish program coordinator also forwards the notice to local newspapers. The municipal shellfish wardens will post notifications in highly visible public places, and marine patrol officers will then conduct intense patrols of the affected harvesting areas by water and from land.

The DMR has established policy to assist in the coordination of a contaminated shellfish product recall. DMR requires the certified dealer to contact the receiving state's control authority and provide all pertinent recall and tagging information. The dealer will request the suspect product to be destroyed or returned to the state of origin for further assessment.

The DMR is in close contact with the Canadian shellfish authorities and other state officials along the eastern seaboard. Information regarding increased toxicity in a growing area and changes in phytoplankton populations is shared and analyzed. Collaboration by the DMR, USFDA and the University of Maine Cooperative Extension resulted in the creation of a volunteer-based phytoplankton monitoring program in 1996. There are currently 62 active volunteers sampling 46 sites statewide who report weekly to the DMR on their findings from plankton tows performed at stations assigned by the DMR.

On August 16, 2010 FDA met with DMR at the Lamoine Marine Patrol and Water Quality Lab to discuss marine biotoxin monitoring activities. DMR provided records reflecting marine biotoxin closures in 2010 and analytical results found through screening. FDA also observed the state's marine biotoxin lab perform mouse bioassay tests on a set of water samples collected recently.

e) Water Quality Laboratory Evaluation

In 2008, the FDA Laboratory Evaluation Officer Linda Chandler evaluated both the micro and biotoxin laboratories in both the West Boothbay Harbor and Lamoine State Park facilities. All four components were found to be conforming to good laboratory practices. The actual laboratory evaluation reports are on file with the FDA and the DMR.

f) Shoreline Survey Database

The Shellfish Management Areas within Maine are quite large. The water quality staff members have been forced to break areas into smaller, more manageable sized areas when conducting any shoreline survey reconnaissance. As a result, it may take several years for the pollution source assessment along an entire growing area shoreline to be completed.

The shoreline survey database is set up to be very comprehensive. Both laboratories are now routinely updating the shoreline survey database from their field data sheets. Unlike past years it was noted during the 2009 and 2010 evaluations that all portions of the database were completed and contained accurate and up to date information based on the field review. This is a significant improvement over the FY 2008 review.

g) Aquaculture/Relay Activities

The DMR has seen an increase in shellfish aquaculture and relay activities. Until recently, shellstock relay from prohibited or restricted areas has not been a routine commercial endeavor. Due to the depletion of shellstock in some coastal towns and to the change in classification of shellfish harvest areas where there are pre-existing shellfish aquaculture leases the harvesters and aquaculturists have been diversifying their interests by requesting permits to move shellstock from restricted areas to waters classified as approved.

The DMR relay regulations which went into effect on May 2008 now require strict oversight by an unbiased and vetted individual to ensure that shellfish harvested in moderately polluted waters is not inadvertently diverted to market. The new regulation also requires additional record keeping on the part of both the harvester and person performing the oversight for the relay project. The new regulation details how the site to which the shellstock are relayed will be properly marked on all corners and that the normally approved waters will be closed until the required testing is performed. The DMR currently issues aquaculture permits, reviews operational plans and approves sources of seed. Currently there are no land-based aquaculture facilities in Maine which would require inspections every six months.

During the 2010 evaluation, DMR advised FDA that the shellfish authority was having internal discussions regarding possibly issuing an aquaculture permit allowing relay of market sized shellstock taken from a particular lobster pound in waters classified prohibited to approved waters for cleansing. FDA advised DMR that as per MO chapters IV@.03E.(2)(a) and IV@.03E.(2)(b), market sized shellstock shall not

be relayed from waters classified prohibited that is intended for market (see "New or Emerging Problems").

3. Current Findings

   a) State Program Deficiency

      No state program deficiencies were found during this evaluation.

   b) Recommendation

      The FDA recommends that DMR field staff assess the dilution factor necessary to determine a sufficient closure area around an active mooring field marina found by FDA operating off Cape Jellison in Maine's Growing Area WW. On July 21, 2010 FDA noted while conducting field work during the FY 2010 Control of Harvest (patrol) evaluation that this particular mooring area had approximately thirty (30) recreational boats anchored in an area classified approved (see "Corrective Actions taken by the State").

4. Corrective Actions taken by the State

   Based on FDA's recommendation conveyed to DMR through an e-mail in July 2010, DMR placed a prohibited zone around an active marina/mooring field operating off Cape Jellison, effective August 2, 2010. The new prohibited zone is identified as "A.2." on Maine Department of Marine Resources Pollution Closed Area No. 34 for the Stockton Harbor, Searsport and Stockton Springs area.

5. Action Plans Requested

   No action plan is requested based on finds of this evaluation.

6. Accomplishments

   General

   - Three new permanent positions that were created by the Legislature to address non-compliance with the NSSP were filled in 2009. The positions are held by the following people: Anna Bourakovsky, Scientist III, Growing Area Program Manager; Fran Pierce, Scientist I, Boothbay Harbor and John Fendl, Scientist I, Lamoine. All three were promotions from within the Growing Area Program which left three vacancies in their absence. Those vacancies were backfilled through the hiring of Eric Sroka, Specialist I, Boothbay Harbor; Glenn Nutting, Scientist I, Boothbay Harbor and Michael Loughlin, Specialist I, Lamoine.

   - On January 20, 2010, Ms. Couture from the Biotoxin Monitoring Program met with scientists and statisticians from Woods Hole Oceanographic Institute to collaborate on two publications, both intended for peer-reviewed journals. They

will use the Maine Harmful Algal Bloom Index that Darcie created as a basis for a historical perspective and possible linkages to ongoing forecasting efforts for the severity of "red tide" blooms in the Gulf of Maine.

- Ms. Michelle Mason Webber reported on February 5, 2010 that the DEP GIS Map web page (http://www.maine.gov/dep/gis/datamaps/) added a new Google Earth project under the Land & Water Bureau link called "Overboard Discharges, Bacterial Closures and Molluscan Shellfish Habitats". Ms. Webber created the Molluscan Shellfish Habitat layer.

- In late May 2010, the DMR, FDA, EPA, DEP, Environment Canada and interested shellfish industry members collaborated on a second hydrographic/dye study of the Yarmouth Waste Pollution Control Facility (WPCF) on the Royal River. The previous hydrographic study was conducted on the Royal River in 2000. The FDA has been working to finish the draft report of that study and has found that there is missing information. The Yarmouth WPCF has also added a diffuser to the outfall pipe and moved it to deeper water since that study. So, in order to establish the 1000:1 dilution line, the time of travel of effluent on ebb and flood tides and the appropriate conditional area, the agencies conducted another dye study of the Yarmouth WPCF at the end of May 2010 (May 17-25). The FDA engineer(s) will be analyzing the data and writing the report.

  DMR's Mercuria Cumbo and Amy Fitzpatrick participated in a conference call on Tuesday, October 26, 2010 with the U.S. FDA and Tom and Lori Howell of Spinney Creek Shellfish to discuss the preliminary results of the Yarmouth Wastewater Treatment Plan dye study that was conducted in May 2010. Additional information is needed to determine the location of the 1000:1 dilution line in the Cousins River. The additional information will be gathered via shellfish and water samples at pre-established sites used during the study using in situ shellfish. The DMR and FDA will also be collecting raw and treated wastewater from the Yarmouth treatment plant in order to determine loading under different conditions; seasonal, wet and dry.

- The 124th Maine Legislature passed L.D. 1584 which was signed into law on February 21, 2010. The new law requires wholesale dealers and retailers to purchase shellfish only from licensed harvesters and also requires harvesters to present proof of licensure at shellfish sales.

- Alison Sirois, DMR Volunteer Coordinator was awarded $25,000 from the Maine Outdoor Heritage Fund toward the purchase of a FlowCAM to assist the Phytoplankton Monitoring Program in its role as an early warning system for the Maine Biotoxin Program. The FlowCAM will be used not only for long-term monitoring of plankton communities, important in monitoring shifts in oceanographic plankton populations, but also for accurately identifying and enumerating toxic species responsible for paralytic shellfish poisoning (PSP) as well as other future threats of toxic species.

- In order to enhance and implement Maine's rainfall conditional management plans and emergency flood closure management program, Jamie Lewis at AmeriCorps conducted rain gauge training and recruited new reporting site volunteers from April – May at 10 training sites. Volunteers have been instructed to submit a significant weather report when they collect and record 1" of rain in less than 24 hours. Volunteers have already started doing this and all their data is accessible at www.cocorahs.org. Each volunteer site has been evaluated for appropriate gauge location and each has been trained on how to set up, measure and report rainfall. Statewide there are 24 new rainfall reporting volunteers as a result of Jamie's efforts. This information will help the Department with determining where and when shellfish closures resulting from rainfall need to me made.

- Mercuria Cumbo, Microbiologist III and Water Quality Laboratory Manager and Cathy Vining, Microbiologist II BBH Lab, attended a regional FDA partnership meeting of the Northeast Laboratory Evaluation Officers and Managers meeting on Long Island, NY (September 7 – 10, 2010). Laboratory managers and evaluation officers from ME, NH, MA, CT, RI and NY attended as well as the FDA Laboratory Evaluation Officer Linda Chandler. Darcie Couture, DMR's Biotoxin Program Manager attended via telephone conference on items pertaining to biotoxins and the election of officers.

- On October 12, 2010 Michelle Mason Webber announced that she completed her shellfish resource locations GIS mapping project. She has reviewed her data and the metadata and submitted them to DMR's GIS person, Seth Barker, for approval. Only four towns along the Maine coast don't have shellfish data as part of this project: Bucksport, Orland, Prospect and Warren.

7. New or Emerging Problems

There were four new or emerging trends identified as a result of this evaluation, listed as follows:

- DMR notified FDA that the shellfish authority's Aquaculture Permit Department was having internal discussions regarding possibly issuing an aquaculture permit allowing relay of market sized shellstock taken from a particular lobster pound located in waters classified prohibited to approved waters for long term cleansing. Particularly, DMR's Aquaculture Administrator advised DMR's Director, Public Health Division that they intend to revise the rules to allow shellstock to be taken from Lobster Pound Aquaculture grow-out sites (LPAs) in prohibited waters without restricting them to seed, as long as the shellstock is relayed to a clean site for 6 months prior to market or otherwise cleared for market by Public Health.

  FDA advised DMR that as per MO chapter IV@.03E.(2)(a) and MO Chapter IV@.03E.(2)(b), market sized shellstock shall not be relayed from waters

classified prohibited for the purpose of marketing. Only shellfish seed can be relayed from areas classified as prohibited for market for long term cleansing. Market size shellstock can however be removed from prohibited waters only for the purpose of depletion. Such removal for depletion must be done under direct supervision by the authority and none of the shellstock removed for depletion can ever be shipped to market.

- The DMR notified FDA that they are having internal discussions about how to handle an emerging issue regarding DMR's marine biotoxin monitoring program which came to light in early November 2010. Alexandrium/PSP is the major biotoxin of concern in Maine, but the DMR does occasionally see two other potentially toxin-producing species in Maine waters. One of these species is *Pseudo-nitzschia*, which can produce domoic acid, causing Amnesiac Shellfish Poisoning (ASP) when it occurs in shellfish. Although *Pseudo-nitzschia* has been observed in phytoplankton samples in low levels, regularly, in the fall and winter months for several years, it has occurred in exceptionally high numbers in fall 2010. The recent trend was reported to DMR's Biotoxin Program Manager, Darcie Couture from the state's Phytoplankton Monitoring Network. The information provided by the volunteer monitors triggered the use of some Jellett rapid test ASP screening kits which produced a "positive" test for domoic acid from a phytoplankton sample in Bar Harbor.

  The DMR Biotoxin labs are not currently equipped to run the ISSC approved method for testing shellfish for domoic acid. However, DMR has put a contingency plan into motion, and have shipped phytoplankton and shellfish samples to the NOAA lab in Charleston for further analyses. The results of these analyses will tell DMR if there is any domoic acid toxin in the shellfish, and if so, how much. If it turns out that Maine will have to begin initiating closures for ASP in Maine waters, then the DMR has already arranged to have the FDA laboratory run a small number of shellfish samples using the ISSC approved method to get us through a short emergency period. Additionally, if it turns out that this becomes a problem requiring a large, long-term monitoring effort, then DMR may be able to access NOAA Event Response funds to help the state pay for further testing in the short term. If it turns out that the Department is required to manage for ASP/domoic acid on a regular basis, then there will need to be some permanent budgetary solution for monitoring, which may include equipping and staffing the Biotoxin lab(s) and training staff to handle this testing.

- Land access for shoreline survey has become an issue in the past year. DMR staff members are more and more being denied access to the curtilage of properties for shoreline survey. Properties where the DMR have been denied access are reported to the local codes enforcement and the Department of Environmental Protection. There is a fear that as more properties become unavailable for shoreline survey and pollution source assessment the Department will need to make more closures to protect public health from potential pollution sources. Essentially, in order to successfully conduct

shoreline surveys to stay in compliance with NSSP requirements, DMR may need to be granted legal authority to conduct inspections (within reason) without owner's permission, as long as their land is not posted "No Trespassing", an authority granted to DEP. If such legal authority is not granted, it may be impossible in some cases for DMR to complete the required shoreline survey work under the National Shellfish Sanitation Program.

- Due to a budget shortfall of $160,000 the Growing Area Classification program is in danger of losing the three new permanent positions that were added by the legislature in spring 2009. The positions are held by Anna Bourakovsky, Scientist III, Growing Area Program Manager; Fran Pierce, Scientist I, Boothbay Harbor and John Fendl, Scientist I, Lamoine. If the budget shortfall cannot be met or exceeded the loss of these positions will have a direct result on the ability of the Department to maintain compliance with the NSSP and will mean decreased services to the shellfish industry and the general shellfish consuming public.

8. Technical Assistance and/or Training Requested by the State

   DMR has requested the assistance of FDA Engineer Gregory Goblick in the development of a guidance document to be used by agencies planning hydrographic or dye/dispersion studies. The DMR will use the guidance document to meet the requirements of the NSSP when studies are performed by other agencies. Third party dye/dispersion studies may become more common because the DMR does not have enough staff or resources to conduct the studies. This particular request for technical assistance is carried over from the 2009 evaluation.

   DMR also requested that FDA offer FD242 Sanitation Surveys of Shellfish Growing Areas course in FY2011. DMR suggested that at a minimum, a basic Growing Area Classification online course through FDA ORAU would be sufficient.

9. Summary of the State's response to FDA evaluation

   The ME DMR concurs with the findings of this evaluation and appreciates that the FDA recognizes the vast improvement in the quality of work performed by our staff. We will continue to work toward improving the program and our compliance with the NSSP as the new staff members become more fluent in the program requirements.

10. Conclusion

    The DMR has shown improvement since the FY 2008 evaluation. The 2010 evaluation has determined that the program has made significant improvements with efforts to adequately evaluate all known pollution sources, specifically streams and other overland runoff conduits. Although not complete, the DMR was able to perform enhanced stream assessment in most growing areas and is committed to further enhance their stream survey studies.

The program evaluation determined that the DMR was not able to comply with all program requirements in FY 2008 in many growing areas in the western most part of the state. As a result the DMR made the only decision possible in the interest of public health and closed the growing areas. The result of closing vast productive shellfish beds from Kittery to Harpswell and classifying the areas Prohibited meant that the areas would not be assessed at the present time against the NSSP MO. The DMR acknowledges the Chapter IV requirement that the areas will only be opened after a thorough assessment supported by an adequate sanitary survey and that FDA shall be notified of the upward revision of classification. This evaluation found that DMR has been conducting updated shoreline surveys, thus allowing the reopening of some areas closed due to expired surveys.

The DMR's struggle to maintain compliance stems directly from the inadequate resources available to accomplish the work necessary to meet the requirements of the NSSP-MO. The issue of insufficient staff has been noted in formal evaluations since FY 2004. The lack of staff has had a direct impact on the level of documented incomplete work by the DMR. During this evaluation FDA learned that the Maine Legislature concurred that the DMR was under staffed based on the level of work needed to be performed to achieve compliance with the NSSP MO. The legislature added three additional permanent positions to the DMR Public Health Division budget which was signed into law by the Governor in the spring of 2009. This action was a direct result of legislative hearings, lobbying by the shellfish industry and strong encouragement by the FDA. It is crucial that the funds designated for these three new positions be maintained annually to ensure constant and uninterrupted services to the shellfish industry and general public living and visiting Maine. FDA acknowledges that it will take some time to train and fully utilize the new employees. The DMR and the FDA are discussing how to best prioritize the workload and training of the new employees to ensure that Maine achieves compliance with the NSSP.

FY 2010
PROGRAM ELEMENT EVALUATION REPORT

OF THE

GROWING AREA CLASSIFICATION ELEMENT
SHELLFISH SANITATION PROGRAM
DEPARTMENT OF MARINE RESOURCES
STATE OF MAINE

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ON

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